



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,743	11/21/2000	Rajesh Ranganathan	01997/521003	1951

21559 7590 06/13/2003

CLARK & ELBING LLP  
101 FEDERAL STREET  
BOSTON, MA 02110

EXAMINER
----------

WOITACH, JOSEPH T

ART UNIT	PAPER NUMBER
----------	--------------

1632

DATE MAILED: 06/13/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/717,743

Applicant(s)  
Ranganathan et al.

Examiner  
Joseph Weitach

Art Unit  
1632



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Mar 20, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-21 is/are pending in the application.
- 4a) Of the above, claim(s) 2, 4, 6-15, and 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit: 1632

### **DETAILED ACTION**

This application filed November 21, 2000, is a continuation in part of application 09/559,622, filed April 27, 2000, which claims benefit to 60/131,149, filed April 27, 1999.

Applicants' amendment filed March 20, 2003, paper number 13, has been received and entered. The specification has been amended. Claim 16 has been canceled. Claims 1-15, 17-21 are pending.

### ***Election/Restriction***

Claims 1-5, 17-21 are pending. Claims 2,4, 6-15 and 17-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 11. Claims 1, 3 and 5 are currently under examination as they are drawn to a substantially pure nucleic acid sequence encoding a serotonin-gated anion channel.

This application contains claims drawn to an invention nonelected without traverse in Paper No. 11. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any

Art Unit: 1632

amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1, 3 and 5 stand provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 3 and 5 of copending Application No.09/559,622.

Applicants indicate that claims 1, 3 and 5 in 09/559,622 are directed to a non-elected invention and agree to cancel these claims in reply to the next office action in connection with this application. See Applicants' amendment bridging pages 5-6.

Art Unit: 1632

A review of 09/559,622 indicates that a final office action was mailed February 24, 2003, paper number 19, however an amendment from Applicants canceling claims 1, 3 and 5 has not been received. As indicated in the previous office action the claims are exact duplicates of each other. The rejection can not be held in abeyance, therefore, because claims 1, 3 and 5 are still pending, the rejection is maintained.

This is a provisional double patenting rejection since the conflicting claims have not in fact been patented

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Olde *et al.*, Ramamoorthy *et al.*, Demchyshyn *et al.*, Corey *et al.* or Blakely *et al.* (each present in the IDS).

Applicants review the teaching of each of the cited references and argue that none of the references anticipate a sequence encoding a serotonin-gated anion channel as required by claim 1. Specifically, Applicants note that the specification teaches that a serotonin-gated anion channel is

Art Unit: 1632

defined in the specification as “a channel whose opening is regulated by serotonin binding” (pointing to page 16, lines 5-7). In light of this definition Applicants argue that the sequences taught by the cited references do not anticipate the claimed invention. See Applicants’ amendment pages 6-7. Applicants’ arguments have been fully considered, but not found persuasive.

The definition indicated and cited by Applicants is noted. As pointed out in the previous office action the summary of the specific invention of MOD-1 taught by the specification is described as a serotonin-gated ion channel (page 4; line 8), however this includes other forms of the anion channel including sequences from any animal sources, and a variant or mutant of the 5HT receptor (pages 5-7). Further, the specification teaches that “the polypeptide is a subunit that makes up a multi-subunit serotonin-gated anion channel” (page 6, lines 4-6). Thus, an interpretation supported by the instant specification of the claimed invention and what is encompassed by the term of a serotonin-gated anion channel, is that the present claims encompass proteins which are part of the multi-subunit complex which regulate the flow of anions in response to the binding of serotonin. More broadly, “variants” can be interpreted as proteins which are simply related. Examiner notes that Olde *et al.*, Ramamoorthy *et al.*, Demchyshyn *et al.* and Blakely *et al.* do not teach the specific nucleic acid sequence taught in the specification for mod-1 isolated from *C. elegans*, however given the breadth of the instant claims encompassing any variant, the various serotonin transmembrane transporters/receptors taught by the cited references would anticipate the invention as instantly claimed. The sequences

Art Unit: 1632

specifically disclosed in the cited references each share homology to each other and are related as they are functionally identified (see abstracts of Demchyshyn *et al.*, Corey *et al.* and Ramamoorthy *et al.* and summary of 5-HTs in Olde *et al.* for example). In light of the breadth of the present claims, the polynucleotide sequences taught by Demchyshyn *et al.*, Corey *et al.*, Olde *et al.*, Ramamoorthy *et al.* and Blakely *et al.* meet the limitations of the claims and thus, anticipate claims 1, 3 and 5.

#### ***Conclusion***

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1632

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Voitach whose telephone number is (703)305-3732.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds, can be reached at (703)305-4051.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group analyst Dianiece Jacobs whose telephone number is (703) 308-2141.

Papers related to this application may be submitted by facsimile transmission. Papers should be faxed via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center numbers are (703)308-4242 and (703)305-3014.

Joseph T. Voitach

*Deborah Crouch*

DEBORAH CROUCH  
PRIMARY EXAMINER  
GROUP 1800/1630